

A B S T R A C T

[PROBLEMS] A magnet is magnetized in a stable magnetizing magnetic field to reduce inertia of a brushless motor without
5 degrading motor characteristics.

[MEANS FOR SOLVING PROBLEMS] A hollow cylindrical rotor core 6 is installed on a shaft 5, and magnets 2 with a circular arc cross section are installed on the outer peripheral surface of the rotor core 6. The rotor core 6 has an outer ring section
10 12 having a thickness W_r from the outer peripheral surface to the shaft 5 side, ribs 13 formed inside the outer ring section 12 and extending from the inner peripheral surface 12a of the outer ring section to the shaft 5 side, and hollow sections 14 formed between the ribs 13. The outer diameter ϕ_n of the
15 hollow sections 14 is set in the range of $\phi_c - 2 \times 3 W_t \leq \phi_n \leq \phi_c - 2 \times 1.3 W_t$, with ϕ_c being the outer diameter of the rotor core 6 and W_t being the thickness of the magnets 2.